



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/889,666	09/25/2001	Rudolf Kodes	1454,1079	6964
21171	7590	04/07/2008	EXAMINER	
STAAS & HALSEY LLP			THANGAVELU, KANDASAMY	
SUITE 700			ART UNIT	PAPER NUMBER
1201 NEW YORK AVENUE, N.W.			2123	
WASHINGTON, DC 20005			MAIL DATE	
			04/07/2008	
			DELIVERY MODE	
			PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	09/889,666	KODES, RUDOLF
	Examiner KANDASAMY THANGAVELU	Art Unit 2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(o).

Status

1) Responsive to communication(s) filed on January 10, 2008.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 5-7,9,11,20 and 21 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 5-7,9,11,20 and 21 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)

2) Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) Information Disclosure Statement(s) (PTO/SB/08)

Paper No(s)/Mail Date _____

4) Interview Summary (PTO-413)

Paper No(s)/Mail Date _____

5) Notice of Informal Patent Application

6) Other: _____

DETAILED ACTION

1. 1. This communication is in response to the Applicants' Appeal brief mailed on January 10, 2008. Claims 5-7, 9, 11, 20 and 21 of the application are pending. This office action is made final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. §112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claims 5-7, 9, 11 and 20-21 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Claim 21 states in part, "preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship". The specification does not describe anywhere connecting the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship. The cause-and-effect relationship between the activities is not described anywhere in the specification. Therefore, claim 21 has no support in the specification.

Claims 5-7, 9, 11 and 20 are rejected because of their dependence on rejected claims.

Claim Interpretations

4. The specification describes at Para 003, engineering process having units having relationships; at Para 006, a first unit, a set of second units and a third unit; a second unit connected to a first unit; a third unit determined from the second units, which has a relationship with the first unit; at Para 0011, that **the third unit can be a predecessor or successor of the first unit**; at Para 0013, that units represent activities or results of the activities; a set of activities being able to act on an event; an event being a precondition for a plurality of activities; at Para 0031, that units are embodied as activities or results; at Para 0033, that **activities have direct predecessors and direct successors**; the predecessor results are illustrated; at Para 0035, that **connection criteria includes predecessors and successors**; units of different type are results and activities; at Para 0037, selecting a plurality of first units for which third units are determined from second units; at Para 0038, results are selected and all the following activities are determined; **results being predecessors of activities; activities give rise to results**.

Based on the above description, it is clear that the engineering process comprises of numerous activities; the activities have predecessors and successors. Therefore, the activities are connected in a predecessor/successor relationship. Since the specification does not describe the cause-and-effect relationship, but describes the predecessor/successor relationship, **the Examiner has interpreted the cause and-effect relationship to be same as the predecessor/successor relationship.**

The specification describes results being predecessors of activities and activities giving rise to results. It also describes a set of activities being able to act on an event and an event being

a precondition for a plurality of activities. Therefore, **the Examiner has interpreted an event to be same as a result.**

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 5-7, 11 and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by **Valko** (U.S. Patent 5,303,170).

6.1 **Valko** teaches system and method for process modeling and project planning.

Specifically, as per claim 21, **Valko** teaches a (processing) method (for an engineering activity) (CL1, L7-8 L1-9; CL1, L10-18; CL1, L35-37; CL2, L43-64), comprising:

modeling an engineering activity having a plurality of interrelated events with relationships defined between the events (Fig. 1; CL1, L10-18; CL1, L51-53; CL2, L43-64; CL3, L27-31; CL3, L43-45);

displaying the model of the engineering activity with all relationships being shown (Fig. 1; CL3, L27-31; Fig. 9, Item 906; CL3, L43-465);

selecting a first event of the engineering activity using a graphical user interface (CL2, L43-47; CL14, L48-49; Fig. 9, Items 602 and 906; it is inherent that such computer systems are

provided with graphical user interface; See Agrawal et al. (U.S. Patent 6,278,977): CL3, L24-29);

preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship (Fig. 1, A to B; B to C, D and E: Cause-and-effect relationship is interpreted as predecessor/successor relationship CL2, L51-54; CL3, L43-45);

determining at least one third event of the engineering activity from the set of second events (Fig. 1, D to F);

preparing at least one second connection to connect the at least one third event to the first event in a predecessor/successor relationship (Fig. 1, F to B); and

displaying the first event together with connections selected from the group consisting of the first connections and the at least one second connection, the first event and the connections being displayed without displaying any relationship unless the relationship is defined by a first or second connection (Fig. 1, First event = B; First connection = B to D; Second connection = F to B).

Per claim 5: **Valko** teaches that the events have a predecessor/successor relationship with respect to one another (CL2, L43-47; CL2, L51-54; CL2, L61-64).

Per claims 6 and 7, **Valko** teaches that the first event precedes the third event in the predecessor/successor relationship; the third event succeeds the first event in the predecessor/successor relationship (Fig. 1, B to F).

Per claim 11: **Valko** teaches that the graphical representation is effected by means of actuation using a context-sensitive menu (CL2, L43-47; Fig. 9, Items 602 and 906: it is inherent that such computer systems are provided with graphical user interface which provide context-sensitive menu; See Agrawal et al. (U.S. Patent 6,278,977): CL3, L24-29).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 9 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Valko** (U.S. Patent 5,303,170) in view of **Agrawal et al.** (U.S. Patent 6,278,977).

9.1 As per claims 9 and 20, **Valko** does not expressly teach that the events have associated information generated as results of the activities. **Agrawal et al.** teaches that the events have associated information generated as results of the activities (CL7, L57-59). It would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify the method of **Valko** with the method of **Agrawal et al.** that included the events having associated information generated as results of the activities, because that would allow the methodology to automatically derive and steadily improve the process model and project planning (Abstract, L3-9).

Response to Arguments

10. Applicant's arguments with respect to 35 USC 112 First Paragraph, 102(b) and 103 (a) rejections filed on January 10, 2008 have been considered. Applicant's arguments with respect to 35 USC 112 First Paragraph, 102(b) and 103 (a) rejections are nor persuasive.

10.1 As per the applicant's argument that "The Office Action asserts that the specification does not describe anywhere connecting the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship; the cause-and-effect relationship between the activities is not described anywhere in the specification; Fig. 1, to the contrary, indicates that a predecessor (activity 101) leads to a successor (result 102), which one of skill in the art would understand to be a "cause-and-defect relationship"; connections are shown being prepared to connect a first event of an engineering activity 101 to a set of second events of the engineering activity 101 in a cause-and- effect relationship in Figs. 1 and 2, and described at page 3, lines 13-19 and page 5, lines 22-29 of the English translation of the

International Application PCT/DE00/00075, a copy of which was filed originally with the application; explicit support for claim language, moreover, is not required; it is well-settled, that the test for compliance with the description requirement is whether a person skilled in the art would reasonably conclude from the disclosure whose filing date is being relied on that the inventor had possession, as of the filing date, of the claimed invention; Fig. 1, to the contrary, indicates that a predecessor (activity 101) leads to a successor (result 102), which one of skill in the art would understand to be a "cause-and-defect relationship"; thus, the specification does describe a cause-and-effect relationship in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention', the Examiner respectfully disagrees.

The Examiner takes the position that what the applicant has shown in Fig. 1, Fig. 2 and Fig 3 of the application are activity networks connecting various activities. As Explained in paragraphs 3 and 4 above, the activities have predecessors and successors. The relationship between the predecessors and successors is not described in the specification as cause-and-effect relationship. Particularly Page 3, Lines 13-19 and Page 5, Lines 22-29 of the English translation of the International Application PCT/DE00/00075 do not describe cause-and-effect relationship. Rather, these lines describe "activities being permissible only after specific results" and "direct predecessors and direct successors given as connection criterion". The applicant simply argues the cause-and-effect relationship which is not in his specification. The Examiner takes the firm position that one of ordinary skill in the art would not understand and would not conclude the predecessor-successor relationship to be a cause-and-defect relationship. Looking at Fig. 2 of the application, Item 102, Temporary arrangement plan has Item 203, Project deadline plan, Item

206, Tender documents and Item 210, Pipeline plan as predecessors. There is no cause-and-effect relationship between the predecessors, Item 203, Project deadline plan, Item 206, Tender documents and Item 210, Pipeline plan and the successor Item 102, Temporary arrangement plan.

Taking another Example, Fig. 2 of U.S. Patent 5, 503, 249 which was also used by the examiner in previous rejections, when an elevator stops at a floor, it opens its doors. Then passengers deboard from the car and then waiting passengers board the car. Then the elevator closes its door. One will not understand that passenger deboarding the car is the cause of passenger boarding the car. Similarly, one will not understand that passenger boarding the car is the cause of elevator closing its doors. It is always not necessary for the passengers to deboard the car, before passengers board the car. If the car does not have any passenger who wants to deboard at that floor, then no passenger will deboard the car. Similarly, if no passenger is waiting at that floor to board the car, then no passenger will board the car. Therefore, one will not conclude that passenger boarding the car is the effect of passenger deboarding the car. One will not also conclude that passenger boarding the car is the cause of elevator closing the door. While there are predecessor-successor relationships among these activities, there are no cause-and-effect relationships. In all activity networks used in Engineering such as project planning and control, product integration etc. there are predecessor-successor relationships, but not cause-and-effect relationships.

10.2 As per the applicant's argument that "Valko neither teaches, discloses, nor suggests preparing first connections to connect the first event of the engineering activity to a set of second

events of the engineering activity in a cause-and-effect relationship; Valko is determining the availability of alternative resources required before an activity can commence, not causes for the activity; since Valko defines alternative resources required to commence an activity, Valko is not preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship; in Valko successors to starting an activity are signaled when a set of prerequisites necessary to start an activity are present; prerequisites are not causes; there is no cause-and-in effect relationship between the activity and the prerequisites to starting the activity, or between the successors to starting the activity and the activity; the activity and the successors to starting the activity are just waiting to see when the prerequisites to starting the activity are present; since, in Valko, successors to starting an activity are signaled when a set of prerequisites necessary to start an activity are present, Valko is not preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship" the Examiner takes the position that the activity network claimed by the applicant has only predecessor-successor relationship and no cause-and-effect relationship, as explained in Paragraph 10.1 above.

In addition, in the applicant's activity network of Fig.2, there are numerous resources, Items 201 to 212 required for performing the activity 101, check and modify arrangement plan of the tender. Therefore, the availability of these resources is signaled to the activity 101 in Fig. 2 of the applicant's invention. The use of resources as precondition for an activity and signaling the presence of the resources are in Applicant's Fig 2 and Fig. 3. All the dotted lines feeding into start of an activity are signaling the presence of resources required for starting that activity

in the applicant's Fig. 2 and Fig. 3. The Applicant has exactly the same activity model as Valko reference.

10.3 As per the applicant's argument that "In Valko each activity may have one or more signal lines connecting it to other activities in the network or to itself in a feedback loop; feedback is gathered after the activity takes place, and is thus not causation; since, in Valko, each activity may have one or more signal lines connecting it to other activities in the network or to itself in a feedback loop, Valko is not preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship", the Examiner takes the position that the activity network claimed by the applicant has only predecessor-successor relationship and no cause-and-effect relationship, as explained in Paragraph 10.1 above.

In addition, specification Page 1, Para 006 states, a first unit is connected to a set of second units in a predefined fashion; at least one third unit is determined from the set of second units, which has a relationship with the first unit; Page 2, Para 0011 states that **the at least one third unit can be a predecessor or successor of the first unit**. The Examiner directs the applicant to explain, if the third unit that follows the second unit that flows the first unit is the predecessor of the first unit, is there not a feedback loop from the third unit to the first unit. If it is not feedback loop, then when the third unit is the predecessor to the first unit, is it a feed forward loop?

10.4 As per the applicant's argument that "in Valko, the model waits for signals from some number of prerequisites to start an activity; the activity is going to start, the model is just waiting to see when the prerequisites to starting the activity are present; since, in Valko, the model waits for signals from some number of prerequisites to start an activity, Valko is not preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship", the Examiner takes the position that the activity network claimed by the applicant has only predecessor-successor relationship and no cause-and-effect relationship, as explained in Paragraph 10.1 above.

In addition, the Examiner takes the position that in Fig. 2 of the application, the activity 101, check and modify arrangement plan of tender waits for the resources 201 to 211 to be present. Only when these resources are available the activity 101 can occur. The applicant may choose to call the units 201 to 212 as results, but one of ordinary skill in the art will conclude that these are the resources required for performing activity 101. In the applicant's Fig. 2, activity 101 waits for the results or resources 201 to 212 to be present, for the start of the activity. If these resources are not present, activity 101 cannot occur. Applicant's attention is also directed to Fig. 3 of the application where the activities 301 to 304 wait for the resources fed into the small circles at the start of the arrows representing the activities. The Applicant is directed to show how he can claim that his activities are not waiting for the resources fed into the small circles at the start of the activity arrows.

10.5 As per the applicant's argument that, "the network shown in Fig. 1 of Valko, is made up of a plurality of activities 102- 112 selectively connected with one another by way of signal

lines, not in a cause-and-effect relationship; since the network shown in Fig. 1 of Valko is made up of a plurality of activities 102-112 selectively connected with one another by way of signal lines, Valko is not preparing first connections to connect the first event of the engineering activity to a set of second events of the engineering activity in a cause-and-effect relationship”, the Examiner takes the position that the activity network claimed by the applicant has only predecessor-successor relationship and no cause-and-effect relationship, as explained in Paragraph 10.1 above.

In addition, the applicant's activity network also uses signal lines to indicate the presence of predecessors to the activity as shown in Fig. 2 and Fig. 3. If there are no signals going from predecessors 201 to 212 in Fig 2, to the activity 101, how does the activity 101 start? Is it by simply guessing when the predecessors are present or by intuition? The applicants have chosen to apply selective ignorance to argue the existence of the cause-and-effect relationship and lack of signals in their activity network and presence of signals in the Valko reference. In Fig. 3 of the application, how do the predecessors of the activities 301 to 304, viz., the resources feeding into the small circles at the start of the arrows of the activities indicate to the activities the presence of the results? May be by black magic? The Examiner takes the position that the resources feeding into the small circles send signals (in computer implementation, an interrupt or a polling has to occur, to verify the existence of the resources or results) to the activities 301 to 304, so they can start executing.

Conclusion

ACTION IS FINAL

11. Applicant's arguments with respect to claim rejections under 35 USC 112 First Paragraph, 102(b) and 103 (a) are not persuasive. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez, can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

K. Thangavelu
Art Unit 2123
April 3, 2008

/Paul L Rodriguez/
Supervisory Patent Examiner, Art Unit 2123